



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,713	08/31/2000	Trung T. Doan	303.928US5	4284
21186	7590	10/03/2006		
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER MACARTHUR, SYLVIA	
			ART UNIT	PAPER NUMBER
			1763	

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,713

Applicant(s)

DOAN, TRUNG T.

Examiner

Sylvia R. MacArthur

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/14/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The RCE sent 9/14/2006 has been accepted.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 36-39 and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Tzeng et al (US 5,756,155).

The prior art of Tzeng et al teaches a combination nozzle and a vacuum hood that is self cleaning.

Regarding claims 36, 37, and 41: The device comprises a dispenser (inclusive of elements 22 and path 11 and outlet 16) and splash controller (vacuum port inclusive of element 15, 18) see Figs. 2-5. Fig. 4 especially features two concentric nozzles and col.5 lines 5-16. The nozzle is configured to treat the periphery of the wafer according to col. 5 lines 50-65.

Regarding claim 38: The vacuum nozzle completely surrounds the dispenser according to Fig. 4.

Regarding claim 39: See Figs. 2-5.

Art Unit: 1763

Regarding the limitation in claims 36 and 41 that the splash controller generate a gas pressure around the edge that is lower than ambient gas pressure this limitation is inherently perform as a vacuum is provided.

4. Claims 36-39 and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Sukenari (JP 08-017708).

Using the English Translation of the patent, it is noted that the prior art of Sukenari teaches a dual nozzle to remove a film from the periphery of the wafer, see the abstract.

Regarding claims 36, 37, and 41: The device comprises a dispenser (including 14 and 16) and splash controller (including 17 and 15) see the picture on the English Abstract.

Note the nozzles are concentric. The nozzle is configured to treat the periphery of the wafer according to the abstract.

Regarding claim 38: The vacuum nozzle completely surrounds the dispenser according to the figure

Regarding claim 39: See the figure.

Regarding the limitation in claims 36 and 41 that the splash controller generate a gas pressure around the edge that is lower than ambient gas pressure this limitation is inherently perform as a vacuum is provided.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

Art Unit: 1763

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tzeng et al or Sukenari.

The teachings of Tzeng et al or Sukenari were discussed above.

Tzeng et al or Sukenari fails to teach a second nozzle to treat the underside of the wafer. However, the duplication of parts was held to have been obvious by In re Harza 274 F 2d 669, 124 USPQ 378 (CCPA 1960). Making the duplicate nozzles wherein one treats the top of the wafer and the other treats the bottom of the wafer integral is also an obvious matter of design according to In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965) (A claim to fluid transporting vehicle was rejected as obvious over a prior art reference which differed from the prior art in claiming a brake drum integral with a clamping means, whereas the brake disc and clamp of the prior art comprise several parts rigidly secured together as a single unit. The court affirmed the rejection holding, among other reasons," that the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice.""). In this case, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a nozzle as taught by Tzeng et al or Sukenari to treat both sides of the wafer and integral these nozzles to simplify the apparatus design all allow them to be controlled unitarily. Thus, it would have been obvious at the time of the claimed invention to provide the apparatus of Tzeng et al or Sukenari with a duplicate of the taught nozzle wherein both sides of the wafer are treated.

Response to Arguments

Art Unit: 1763


7. Applicant's arguments with respect to claims 36-41 have been considered but are moot in view of the new ground(s) of rejection.

The prior art of Tzeng et al or Sukenari both teach concentric nozzle to clean the edge bead of a wafer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the hours of 8:30 a.m. and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Sylvia R MacArthur
Patent Examiner
Art Unit 1763

September 28, 2006